

## Datasheet: MCA6108

|                      |                     |
|----------------------|---------------------|
| <b>Description:</b>  | MOUSE ANTI SMC1A    |
| <b>Specificity:</b>  | SMC1A               |
| <b>Format:</b>       | Purified            |
| <b>Product Type:</b> | Monoclonal Antibody |
| <b>Clone:</b>        | 4C5-C8-A11          |
| <b>Isotype:</b>      | IgG1                |
| <b>Quantity:</b>     | 50 µg               |

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

|                  | Yes | No | Not Determined | Suggested Dilution |
|------------------|-----|----|----------------|--------------------|
| Western Blotting | ▪   |    |                | 1/1000             |

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

|                                 |  |
|---------------------------------|--|
| <b>Target Species</b>           | Human  |
| <b>Product Form</b>             | Purified IgG - liquid  |
| <b>Preparation</b>              | Purified IgG prepared by affinity chromatography   |
| <b>Buffer Solution</b>          | Phosphate buffered saline  |
| <b>Preservative Stabilisers</b> | <0.1% Sodium Azide (NaN <sub>3</sub> )<br>50% Glycerol   |
| <b>Immunogen</b>                | Recombinant human SMC1A (C-terminus) protein fragments expressed in <i>E. coli</i> .   |
| <b>External Database Links</b>  | <b>UniProt:</b><br><a href="https://www.uniprot.org/entry/Q14683">Q14683</a> <a href="#">Related reagents</a><br><br><b>Entrez Gene:</b> |

---

|                 |  |
|-----------------|--|
| <b>Synonyms</b> | DXS423E, KIAA0178, SB1.8, SMC1, SMC1L1 |
|-----------------|--|

---

|                    |  |
|--------------------|--|
| <b>Specificity</b> | <b>Mouse anti SMC1A antibody</b> recognizes structural maintenance of chromosomes protein 1A (SMC1A), also known as SMC-1-alpha. SMC1A is a member of the SMC superfamily and a component of the cohesin complex ( <a href="#">Michaelis, C. et al. 1997</a> ). SMC1A also plays a role in DNA repair by acting as an effector in the ATM/NBS1 checkpoint pathway ( <a href="#">Yazdi, P.T. et al. 2002</a> ). SMC1A has been implicated in the development of different cancer types. It has been reported to promote colorectal cancer metastasis by recruiting tumor-associated-fibroblasts ( <a href="#">Zhou, P. et al. 2017</a> ) and to stimulate growth and migration of prostate cancer ( <a href="#">Pan, X.W. et al. 2016</a> ). In human hepatocellular carcinoma, phosphorylated SMC1A is highly over-expressed and associated with patient survival rates ( <a href="#">Zhang, Y. et al. 2018</a> ). |
|--------------------|--|

---

|                         |  |
|-------------------------|--|
| <b>Western Blotting</b> | Mouse anti SMC1A antibody recognises a band of approximately 143 kDa in MOLT4, U87 and HeLa cell lysates |
|-------------------------|--|

---

|                |  |
|----------------|--|
| <b>Storage</b> | Store at -20°C only.<br>Storage in frost-free freezers is not recommended.<br>This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use. |
|----------------|--|

---

|                  |                                 |
|------------------|---------------------------------|
| <b>Guarantee</b> | 12 months from date of despatch |
|------------------|---------------------------------|

---

|                                      |   |
|--------------------------------------|---|
| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10049 available at: 10049: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10049.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10049.pdf</a> |
|--------------------------------------|---|

---

|                   |                            |
|-------------------|----------------------------|
| <b>Regulatory</b> | For research purposes only |
|-------------------|----------------------------|

---

## Related Products

### Recommended Secondary Antibodies

|   |   |
|---|---|
| Goat Anti Mouse IgG (STAR77...)         | <a href="#">HRP</a>   |
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>   |
| Rabbit Anti Mouse IgG (STAR8...)        | <a href="#">DyLight®800</a>   |
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>   |
| Goat Anti Mouse IgG (Fc) (STAR120...)   | <a href="#">FITC</a> , <a href="#">HRP</a>  |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">Alk. Phos.</a> , <a href="#">HRP</a>  |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>   |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>  |
| Rabbit Anti Mouse IgG (STAR9...)        | <a href="#">FITC</a>  |
| Goat Anti Mouse IgG (H/L) (STAR117...)  | <a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> ,<br><a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> ,<br><a href="#">FITC</a> , <a href="#">HRP</a> |

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)

'M389902:210811'

**Printed on 06 Jan 2022**

---

© 2022 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)